



# PATENT SPECIFICATION

DRAWINGS ATTACHED

979,996

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## COMPLETE SPECIFICATION

### Slides, Buckles and Similar Articles

We: NEWBY BROTHERS LIMITED, a British Company of Brearley Street, Summer Lane, Birmingham 19, do hereby declare the invention, for which we pray that a Patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to slides, buckles and similar articles of the kind comprising a plate with a slot or other aperture through which there extends or is adapted to extend an adjustable tape. For convenience articles of this kind will hereinafter be referred to by the generic term "slides."

In use frictional engagement between the tape and the slide usually serves to retain the tape in its position of adjustment, or at least assists in retaining the tape in this position. It has been found, however, that small variations in the relative sizes of the slot or aperture and tape affect the performance and utility of the slide, for if the slot is too large the tape tends to slip from its position of adjustment, and if the slot is too small difficulty may be encountered in threading the tape through the slot or aperture and in adjusting the position of the tape in use. An object of the invention is to overcome or reduce this difficulty.

According to one aspect of the present invention there is provided a slide characterised in that the part of the slide which borders the slot or aperture and which, in use, lies within a bend in a length of tape extending through the slot is provided with teeth so shaped that the adjacent edge of the slot is uninterrupted as viewed in a direction normal to the main plane of the plate, and that, in use, they engage the bent part of the tape which connects that part of the tape in the slot with that part which is generally parallel with the plane of the plate.

Further, the teeth are preferably such that they do not project outwards from the outer surface of the plate.

[Price

Also, similar teeth are preferably provided on both sides of the said part of the plate so that, in use, the teeth can engage the bent parts of a loop of tape which connect that part of the tape in the slot with the parts on each side of the slide which are parallel with the plane of the plate.

According to another aspect of the present invention there is provided a slide characterised in that the part of the slide which borders the slot or aperture and which, in use, lies within a bend in a length of tape extending through the slot, is formed with a plurality of superficial notches spaced apart along the border of the slot, each notch opening through that face of the slide defining the interior of the slot and through the outer surface of the slide, so that a plurality of teeth is left between the notches, these teeth, in use, engaging the inner side of the bent part of the tape which connects that part of the tape in the slot with that part which is parallel with the plane of the plate.

Slides in accordance with the invention may be made as metal die-castings or as mouldings of synthetic resinous materials. Preferred slides are made as injection mouldings of nylon, polyformaldehyde, and that material marketed under the Registered Trade Mark "Polypropylene."

The invention will now be more particularly described with reference to the accompanying drawings in which

Figure 1 is a front view of a slide in accordance with the present invention,

Figure 2 is a section along the line 2—2 of Figure 1,

Figure 3 is a front view of a second form of slide in accordance with the present invention,

Figure 4 is a section along the line 4—4 of Figure 3,

Figures 5 and 6 are front views of third and fourth forms of slide in accordance with the present invention,

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Figure 7 is a front view of a fifth form of slide in accordance with the present invention, and

5 Figure 8 is a section along the line 8—8 of Figure 7.

Referring firstly to Figures 1 and 2 these show a slide comprising a flat nylon plate 10 with rounded ends 11 and a symmetrical central slot 12 rather narrower at its centre than at its ends. Rounded projections 13 project into the end of the slot so that in use when two tapes are threaded through the slot and one is formed into a loop round each side limb 14 of the slide the margins of the tape are held apart from one another and adjustment of one tape will not affect the other tape. The outer faces of the slide are generally planar and as can be seen from Figure 1 the side edges of the slot 12 are of uninterrupted arcuate form when viewed in a direction normal to the plane of the slide. Each side limb 14 of the slide is formed on each side with a plurality of superficial notches 15 opening into that wall 16 of the limb forming the side of the slot and into that part 17 of the adjacent outer wall of the limb bordering the slot. The notches have parallel side faces 18 normal to the plane of the slide, and bottom faces 19 inclined at 45° to the plane of the slide and the plane normal to the longitudinal axis of the slot. The parts between the notches constitute teeth which in use engage the weft threads of the tapes, to resist any tendency that there may be for either of the tapes to change their positions of adjustment, and also engage the warp threads of the tapes, to resist any tendency that there may be for either of the tapes to bunch up towards one end of the slot.

A typical slide of this kind is rather less than one inch long rather more than a quarter of an inch wide and 0.05" thick, the slot being 0.7" long and 0.1" wide at its centre. Each slide limb is formed on each side with nine notches 0.03" long, 0.03" apart and of 0.01" maximum depth measured in the plane of the slide or normal to this plane.

Referring now to Figures 3 and 4 these show a slide somewhat similar to that shown in Figures 1 and 2 but having two parallel sided slots 27 separated by a plain central bar 28. Figure 5 shows a slide rather more similar to the slide shown in Figures 1 and 2, and Figure 6 shows a slide similar to that shown in Figure 3. All of these Figures are to the same scale.

Referring finally to Figures 7 and 8 there is here shown a brassiere slide comprising a unitary injection moulding of polyformaldehyde and in the form of a generally rectangular plate formed with four slots parallel with the shorter sides of the plate, thus leaving five parallel bars joined together at their ends. The first or topmost bar 20 is gapped at its

centre and is formed with teeth 21 on its lower side, these teeth like all the other teeth on the slide being provided on both faces of the slide. The second and third bars 22 and 23 respectively have teeth on both their upper and lower sides. The fourth bar 24 is bounded by arcs and is narrower at its centre than at its ends. The fifth or lowermost bar 25 is straight on its lower side but is formed on its upper side with a pair of upwardly directed projections 26. The teeth formed on this slide are generally similar to those on the slide described above in detail.

It will be appreciated that throughout this specification the term tape has been used to designate any form of ribbon or strap of flexible material, whether or not it is formed of a woven fabric.

#### WHAT WE CLAIM IS:—

1. A slide characterised in that the part of the slide which borders the slot or aperture and which, in use, lies within a bend in a length of tape extending through the slot, is provided with teeth so shaped that the adjacent edge of the slot is uninterrupted as viewed in a direction normal to the main plane of the plate, and that, in use, they engage the bent part of the tape which connects that part of the tape in the slot with that part which is generally parallel with the plane of the plate.

2. A slide according to Claim 1 in which the teeth do not project outwards from the main outer surface of the plate.

3. A slide according to either of Claims 1 and 2 in which similar teeth are provided on both sides of the said part of the plate so that, in use, the teeth can engage the bent parts of a loop of tape which connect that part of the tape in the slot with the parts on each side of the slide which are parallel with the plane of the plate.

4. A slide characterised in that the part of the slide which borders the slot or aperture and which, in use, lies within a bend in a length of tape extending through the slot, is formed with a plurality of superficial notches spaced apart along the border of the slot, each notch opening through that face of the slide defining the interior of the slot and through the outer surface of the slide, so that a plurality of teeth is left between the notches, these teeth, in use, engaging the inner side of the bent part of the tape which connects that part of the tape in the slot with that part which is parallel with the plane of the plate.

5. A slide according to any of the preceding Claims which is made as a unitary moulding of a suitable synthetic resinous material.

6. A slide substantially as hereinbefore described with reference to and as shown in Figures 1 and 2 of the accompanying drawings.

7. A slide substantially as hereinbefore described with reference to and as shown in Figures 3 and 4 of the accompanying drawings.
- 5 8. A slide substantially as hereinbefore described with reference to and as shown in Figure 5 of the accompanying drawings.
9. A slide substantially as hereinbefore described with reference to and as shown in Figure 6 of the accompanying drawings.
- 10 10. A slide substantially as hereinbefore described with reference to and as shown in Figures 7 and 8 of the accompanying drawings.

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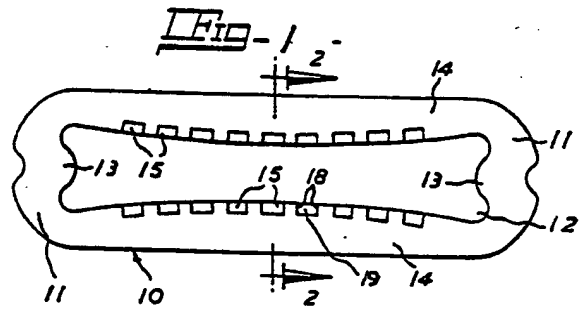


Fig. 2.

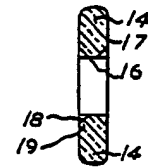
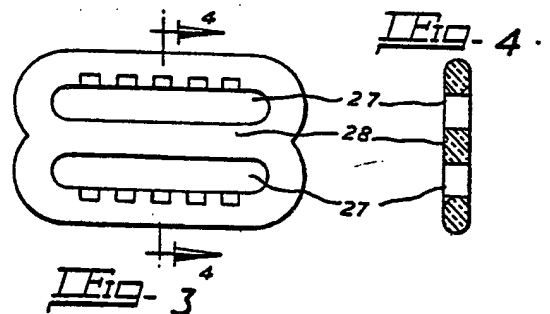
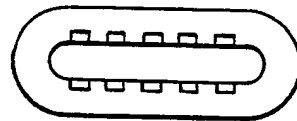


Fig. 5.



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COMPLETE SPECIFICATION

2 SHEETS

This drawing is a reproduction of  
the Original on a reduced scale  
Sheets 1 & 2

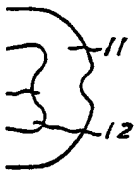


Fig. - 6 -

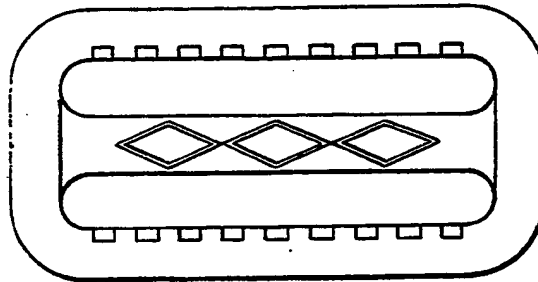
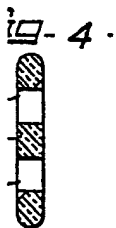
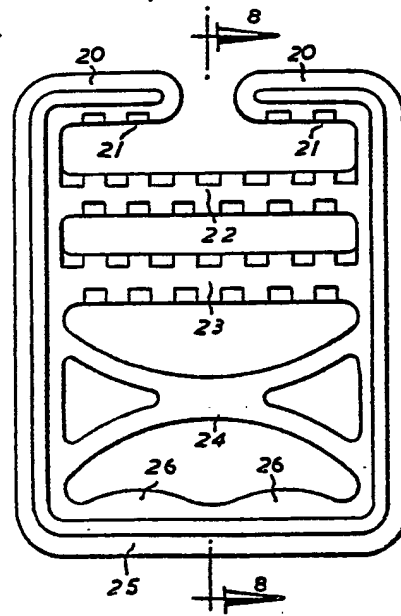


Fig. - 7 -

Fig. - 8 -



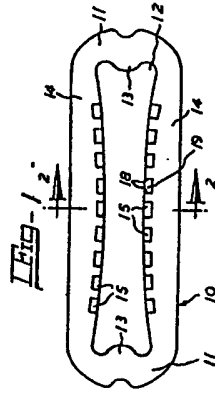


Fig. 1.

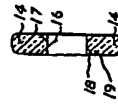


Fig. 2.

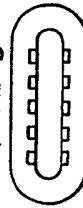


Fig. 3.

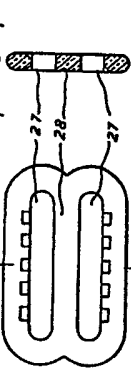


Fig. 4.

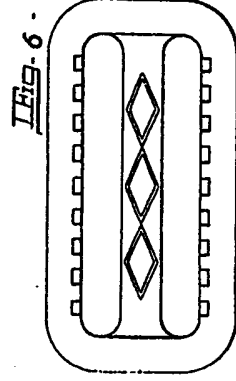


Fig. 5.

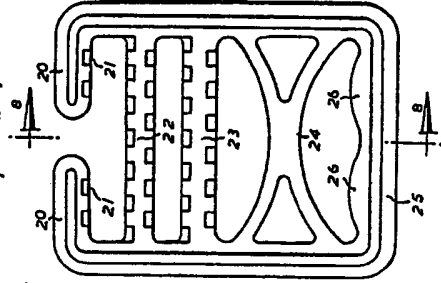


Fig. 6.

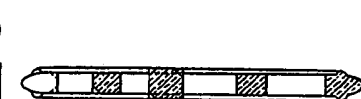


Fig. 7.

Fig. 8.